This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for identifying a cancer patient suffering from hepatoma or sarcoma who is susceptible to arginine deprivation therapy comprising the steps:

a) obtaining a ~~cancerous~~ hepatoma or sarcoma tumor sample from the cancer patient; and

b) detecting the presence or absence of argininosuccinate synthetase protein in said ~~cancerous~~ hepatoma or sarcoma tumor sample, wherein the absence of argininosuccinate synthetase protein in said ~~cancerous~~ hepatoma or sarcoma tumor sample is indicative of a cancer patient who is a candidate for arginine deprivation therapy and the presence of argininosuccinate synthetase protein in said ~~cancerous~~ hepatoma or sarcoma tumor sample is indicative of a cancer patient who is not a candidate for arginine deprivation therapy.

2. (Currently amended) The method of claim 1 wherein prior to, simultaneous with, or after testing the ~~cancerous~~ hepatoma or sarcoma tumor sample, the method further comprises the steps of:

c) obtaining a non-cancerous sample of the corresponding tissue from the cancer patient; and

d) detecting the presence or absence of argininosuccinate synthetase protein in said non-cancerous sample, wherein the absence of argininosuccinate synthetase protein in said non-cancerous sample and the absence of argininosuccinate synthetase protein in said ~~cancerous~~ hepatoma or sarcoma tumor sample is indicative of a cancer patient who is not a good candidate for arginine deprivation therapy, wherein the presence of argininosuccinate synthetase protein in said non-cancerous sample and the absence of argininosuccinate synthetase protein in said ~~cancerous~~ hepatoma or sarcoma tumor sample is indicative of a cancer patient who is a good candidate for arginine deprivation therapy, and wherein the presence of argininosuccinate synthetase protein in said ~~cancerous~~ hepatoma or sarcoma tumor sample is indicative of a cancer patient who is not a candidate for arginine deprivation therapy.

3-5. (Canceled)

6. (Previously presented) The method of claim 1 wherein the presence or absence of argininosuccinate synthetase protein is detected using a technique selected from the group consisting of Western blotting, ELISA, enzyme assays, slot blotting, electrophoresis, and immunohistochemistry.

7. (Previously presented) The method of claim 1 wherein the presence or absence of argininosuccinate synthetase protein is detected using ELISA.

8-26. (Canceled)

27. (Currently amended) The method of claim 1 wherein argininosuccinate synthetase protein in said ~~cancerous~~ hepatoma or sarcoma tumor sample is detected comprising the steps of:

a) contacting the ~~cancerous~~ hepatoma or sarcoma tumor sample of the cancer patient with an antibody specific for an argininosuccinate synthetase protein, or portion thereof; and

b) detecting binding of the antibody to said argininosuccinate synthetase protein, or portion thereof, in said ~~cancerous~~ hepatoma or sarcoma tumor sample wherein the absence of binding of the antibody to said argininosuccinate synthetase protein is indicative of a cancer patient who is a candidate for arginine deprivation therapy and the presence of binding of the antibody to said argininosuccinate synthetase protein in said ~~cancerous~~ hepatoma or sarcoma tumor sample is indicative of a cancer patient who is not a candidate for arginine deprivation therapy.

28-30. (Canceled)

31. (Previously presented) The method of claim 27 wherein said antibody has a detectable label.

32. (Previously presented) The method of claim 31 wherein said detectable label is radioactive, fluorescent, or chromomorphic.

33. (Previously presented) The method of claim 31 wherein said detectable label is ^{131}I, ^{125}I, ^{14}C, ^{35}S, ^{32}P, or ^{33}P.

34. (Previously presented) The method of claim 31 wherein said detectable label is fluorescein, phycolipoprotein, or tetrarhodamine isothiocyanate.

35. (Previously presented) The method of claim 31 wherein said detectable label is an enzyme.

36. (Previously presented) The method of claim 31 wherein said detectable label has a visible color.